## What is claimed is:

- 1. An adaptive sensor comprising:
  - a plurality of detectors; and
  - a plurality of adjustable filters proximate to the plurality of detectors.
- The sensor of claim 1, wherein the filters are bandpass filters.
- 3. The sensor of claim 2, further comprising a plurality of actuators connected to the plurality of adjustable filters.
- 4. The sensor of claim 3, wherein each filter of the plurality of adjustable filters is adjusted by an actuator of the plurality of actuators.
- 5. The sensor of claim 4, wherein each actuator is an electrostatic actuator.

- 6. The sensor of claim 5, wherein each detector of the plurality of detectors is a bolometer.
- 7. The sensor of claim 6, wherein each filter is a Fabry-Perot filter.
- 8. The sensor of claim 7, wherein the plurality of detectors, the plurality of adjustable filters and the plurality of actuators are situated in a package.
- 9. The sensor of claim 8, wherein the plurality of detectors is situated on a first wafer.
- 10. The sensor of claim 9, wherein the plurality of adjustable filters is situated on a second wafer.
- 11. The sensor of claim 10, wherein the second wafer is a topcap situated on the first wafer thereby enclosing the

plurality of detectors and the plurality of adjustable filters.

- 12. The sensor of claim 11, wherein the first and second wafers form an integrated vacuum package.
- 13. The sensor of claim 12, wherein each filter may be adjusted to pass a narrow band of light at a wavelength between about 1 micron and 13 microns.
- 14. The sensor of claim 13, wherein each filter may be adjusted to pass broadband light between about 1 and 13 microns.
- 15. The sensor of claim 14, wherein the second wafer has an IR transparent window.
- 16. A means for detecting comprising:
  - a means for detecting light; and

a means for filtering light proximate to the means for detecting light; and

wherein the means for filtering light has an adjustable bandpass.

- 17. The means of claim 16, further comprising means for adjusting connected to the means for filtering.
- 18. The means of claim 17, wherein the adjustable bandpass may be set to a narrow bandpass at a wavelength between one micron and thirteen microns.
- 19. The means of claim 18, wherein the adjustable bandpass may be set to a broad bandpass covering a range of wavelengths at least from about one micron to thirteen microns.
- 20. The means of claim 19, wherein the means for detecting light and for filtering light are situated in a means for enclosing.

21. A method for detecting comprising:

providing a detector;

placing a filter proximate to the detector;
adjusting the filter to a desired wavelength; and
directing the filter and detector towards a target.

- 22. The method of clam 21, further comprising observing the target with the filter and detector.
- 23. The method of claim 22, wherein the filter may be selectively adjusted to a narrow bandpass or a broad bandpass wavelength.
- 24. A sensor comprising:

an array of detectors; and

an array of tunable etalons; and

wherein each etalon of the array of tunable etalons is tunable to provide narrow band and broad band

transmittance of light to a detector of the array of detectors.

- 25. The sensor of claim 24, wherein each etalon comprises an actuator to tune the etalon.
- 26. The sensor of claim 25, wherein each etalon is tunable independently of the other etalons of the array of tunable etalons.
- 27. The sensor of claim 26, wherein each etalon may be narrow band tuned to a selected wavelength of light for detection by a detector.
- 28. The sensor of claim 27, wherein each etalon may be broad band tuned to a plurality of wavelengths of light for detection by a detector.
- 29. The sensor of claim 28, wherein:

- the array of detectors is incorporated in a first chip;
- the array of tunable etalons is incorporated in a second chip; and
- the second chip may be placed on the first chip such that each etalon is aligned with a detector.
- 30. The sensor of claim 28, wherein:

the array of detectors is an array of bolometers;

the array of etalons is an array of Fabry-Perot etalons; and

the actuator of each etalon is an electrostatic actuator.

31. The sensor of claim 29, wherein:

the second chip is a topcap;

the first chip is a base; and

a bonding of the topcap to the base forms an integrated package.

- 32. The sensor of claim 31, wherein the integrated package is internally sealed from its ambient environment.
- 33. The sensor of claim 31, wherein the first and second chips are bonded on a die-to-die basis.
- 34. The sensor of claim 31, wherein the first and second chips are bonded on a wafer-to-wafer basis.